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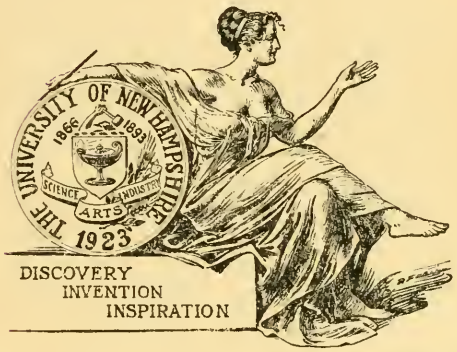

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NEW HAMPSHIRE
AGRICULTURAL EXPERIMENT STATION
DEPARTMENT OF AGRONOMY

Results of Seed Tests For 1919

MADE FOR THE
STATE DEPARTMENT OF AGRICULTURE

BY F. W. TAYLOR

NEW HAMPSHIRE COLLEGE
OF
AGRICULTURE AND THE MECHANIC ARTS
DURHAM, N. H.

SEED TESTS

MADE JULY 1, 1918, TO JULY 1, 1919

The provisions of the Pure Seed Law enacted by the General Court in 1909 require the publication annually of a bulletin showing the results of all seed tests made officially during the previous year. The administration of this law is in the hands of the State Commissioner of Agriculture, who has appointed the writer, Agronomist of the Experiment Station, as his regular agent for making all tests and analyses in this state.

During the year ending July 1, 1919, 798 samples of seed were collected and sent in for analysis by authorized representatives of the Commissioner of Agriculture. Of this number, 410 samples were not guaranteed for purity and germination, and consequently no test or report upon them was made.

In publishing the results of this year's samples we have again made use of the table of "tolerance" for purity as given on page 20 of the Proceedings of the Association of Official Analysts for 1916-17, and which seems to afford a very satisfactory method of allowing or tolerating a reasonable variation in purity tests.

After applying the variations as given by the table to the results of our tests we have simply used the following terms instead of stating the actual figures in the tabulations:

"Satisfactory," meaning that the difference between our test and the guarantee is within the variation allowed; "Above," meaning that our test, after allowing for the variation, is above the guarantee; "Below," meaning that our test, after allowing for the variation, is below the guarantee.

In the matter of germination a variation of five per cent has been allowed in the statement of results and the same terms used as described above for purity.

SEED EXAMINATION, 1919.

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity.		Germination.	
		Found.	Guaranteed.	Found.	Guaranteed.
2148	ALFALFA Charlestown Grain Co., Charlestown, N. H.	S	99	B	91
2068	ALFALFA (*Grimm*) Kendall & Wilkins, Milford, N. H.	B	95.5	S	90
1982	ALFALFA (*White Mountain*) C. P. Stevens, Franklin, N. H.	B	99.5	B	90
2022	ALFALFA John B. Varick Co., Manchester, N. H.	A	97	B	95
2028	ALFALFA (*Grimm*) John B. Varick Co., Manchester, N. H.	S	99	B	90
1919	ALFALFA E. T. Willson, Farmington, N. H.	S	99	S	95
2090	ALSIKE (*Bell*) Abbott Grocery Company, Keene, N. H.	B	99	S	92
1996	ALSIKE Ayers & Jenkins, Rochester, N. H.	S	96	B	90
2041	ALSIKE Bell Hdw. Company, Derry, N. H.	A	97.5	S	90
1901	ALSIKE (*Holway*) F. M. Bunker, Dover, N. H.	B	99	S	93
1910	ALSIKE F. M. Bunker, Dover, N. H.	A	97	A	80
2147	ALSIKE Charlestown Grain Co., Charlestown, N. H.	A	97.7	S	91
2121	ALSIKE (*Bell*) J. Cushing, Keene, N. H.	S	99	A	61.5
2097	ALSIKE J. Cushing, Keene, N. H.	A	99	B	92
2218	ALSIKE W. G. English, Lisbon, N. H.	A	95	S	90
2031	ALSIKE Ferdinand French, Pittsfield, N. H.	A	95.7	B	99
2032	ALSIKE (*A. R. C.*) Ferdinand French, Pittsfield, N. H.	A	96	B	86
2156	ALSIKE C. M. Hildreth & Son, Lebanon, N. H.	A	95.7	S	90
2057	ALSIKE Hill Hdw. & Paint Co., Nashua, N. H.	A	86	S	85
2217	ALSIKE Holbrook Grocery Company, Woodsville, N. H.	S	98.5	A	92
1918	ALSIKE (*Eureka*) C. L. Jenness, Dover, N. H.	A	94	B	90
2065	ALSIKE Kendall & Wilkins, Milford, N. H.	A	97	S	90
2133	ALSIKE Lewis Bros., Lebanon, N. H.	A	95	B	99
1999	ALSIKE (*Pine Tree*) J. A. Maddox & Son, Milton Mills, N. H.	A	96	B	90
2052	ALSIKE Manchester Hdw. Company, Manchester, N. H.	S	93.5	B	95
1887	ALSIKE Miller & Rollins, New Durham, N. H.	A	97	B	94
1950	ALSIKE (*Pan Amer.*) J. S. Morrill, Laconia.	A	97.5	S	94
1890	ALSIKE (*Dickinson*) F. W. Neal, Dover, N. H.	S	98	B	95
1889	ALSIKE (*White Mountain*) Pelletier Bros., Farmington, N. H.	A	98	S	92
1916	ALSIKE (*Pan Amer.*) Pelletier, Bros., Farmington, N. H.	A	97	B	90
1952	ALSIKE (*17388*) Rand & Dearborn, Laconia, N. H.	A	95.79	S	90
2210	ALSIKE (*XX*) I. C. Richardson, Littleton, N. H.	A	84	S	82
1981	ALSIKE (*White Mountain*) H. C. Sanborn, Laconia, N. H.	A	98.5	B	92

A—Above
S—Satisfactory
B—Below

SEED EXAMINATION, 1919—*Continued.*

Sample No.	Kind of Seed, Brand. Name and Address of Dealer.	Purity.		Germination.	
		Found.	Guaranteed.	Found.	Guaranteed.
1869	ALSIKE (*Craver Dickinson Seed Co.*) .... J. H. Seavey, Dover, N. H.	S	92	S	84
2215	ALSIKE (*Ace Brand*) ..... A. L. Shuman, Lisbon, N. H.	A	92	B	89
2262	ALSIKE (*Pan American*) ..... S. A. Schurman, Portsmouth, N. H.	A	97.5	A	90
2235	ALSIKE (*Ace Brand*) ..... Frank Smith Company, Lancaster, N. H.	A	93.39	A	87
1905	ALSIKE ..... Somersworth Grain Co., Somersworth, N. H.	A	98	S	92
2084	ALSIKE (*9103*) ..... F. A. Spaulding, Walpole, N. H.	A	92	A	80
2239	ALSIKE ..... F. B. Spaulding & Co., Lancaster, N. H.	A	97	A	90
1946	ALSIKE (*TT*) ..... C. P. Stevens, Franklin, N. H.	A	95	S	90
2026	ALSIKE ..... John B. Varick Co., Manchester, N. H.	A	95	B	98
1967	ALSIKE ..... Weeks & Smith, Meredith, N. H.	A	97	S	92
1928	ALSIKE ..... E. T. Willson, Farmington, N. H.	S	98	S	90
2070	BARLEY (*2-row*) ..... Bell Hardware Co., Derry, N. H.	S	98	A	90
1868	BARLEY (*6-row*) (*St. Albans Grain Co.*).. F. M. Bunker Dover, N. H.	B	99	S	97
2166	BARLEY (*Montana 6-row*) ..... Charlestown Grain Co., Charlestown, N. H.	A	96.5	A	90
2096	BARLEY (*6-row*) ..... G. H. Eames & Son, Keene, N. H.	B	99	S	95
1995	BARLEY ..... E. C. Foss Company, Rochester, N. H.	B	98	A	90
2220	BARLEY (*6-row*) ..... Gates & Moore, Lisbon, N. H.	S	99.3	S	97
2125	BARLEY (*White Mountain*) ..... Holbrook Grocery Co., Keene, N. H.	S	99.3	S	99
2127	BARLEY (*Monadnock*) ..... Holbrook Grocery Co., Keene, N. H.	S	99.5	A	90
2212	BARLEY (*White Mountain*) ..... Holbrook Grocery Co., Keene, N. H.	S	99.3	S	97
2226	BARLEY (*White Mountain*) ..... Holbrook Grocery Co., Woodsville, N. H.	A	98.75	S	93
1884	BARLEY ..... C. L. Jenness Dover, N. H.	B	99	99	..
1932	BARLEY ..... C. L. Jenness, Dover, N. H.	B	98	A	90
2175	BARLEY ..... Edson & Kinne, Littleton, N. H.	S	98.5	S	97
2059	BARLEY (*6-row*) ..... Manchester Hdw. Co., Manchester, N. H.	S	97.5	A	90
1972	BARLEY (*Chevalier*) ..... J. S. Morrill, Laconia, N. H.	A	98	A	90
1926	BARLEY (*2-row*) (*Craver-Dickinson Seed Co.*) ..... F. W. Neal, Dover, N. H.	B	99	A	92
2178	BARLEY ..... I. C. Richardson, Littleton, N. H.	S	99	S	97
2030	BARLEY (*6-row*) ..... John B. Varick Co., Manchester, N. H.	S	99	S	97
2129	BEET (*Early Reliance*) ..... J. M. Erwin, Keene, N. H.	A	98	S	96
1925	BLUE GRASS (*Craver-Dickinson Seed Co.*) J. H. Seavey, Dover, N. H.	S	90	S	85
1920	BLUE GRASS ..... E. T. Willson, Farmington, N. H.	A	75	S	85
2270	BUCKWHEAT (*Jap*) ..... R. L. Costello Portsmouth, N. H.	S	99	B	97
1917	BUCKWHEAT ..... C. L. Jenness, Dover, N. H.	S	98	S	95

A—Above
S—Satisfactory
B—Below

SEED EXAMINATION, 1919—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity.		Germination.	
		Found.	Guaranteed.	Found.	Guaranteed.
1983	BUCKWHEAT (*White Mountain*) ..... H. C. Sanborn, Laconia, N. H.	B	98.5	B	98
1909	CANADA FIELD PEAS ..... E. T. Willson, Farmington, N. H.	A	90	A	85
2131	BEANS (*Kty. Wonder*) ..... George F. Morse, Keene, N. H.	A	95	S	92
2132	BEAN (*Pole*) ..... George F. Morse, Keene, N. H.	S	100	S	95
2165	CORN (*Golden Dent*) ..... Charlestown Grain Co., Charlestown, N. H.	A	90	B	91
2250	CORN (*Longfellow*) ..... Holbrook Grocery Co., Woodsville, N. H.	A	98	S	92
2045	CORN (*Eureka*) ..... Annis Grain & Lumber Co., N. Londonderry, N. H.	A	98	S	95
2046	CORN (*Leaming*) ..... Annis Grain & Lumber Co., N. Londonderry, N. H.	B	98	A	90
2082	CORN (*Leaming*) ..... Annis Grain & Lumber Co., N. Londonderry, N. H.	99	..	A	90
2100	CORN (*Sanford*) ..... G. H. Eames & Son, Keene, N. H.	A	98	A	90
2079	CORN (*Leaming*) ..... Hill Hdw. & Paint Co., Nashua, N. H.	99	..	S	96
2222	CORN (*Sanford*) ..... Holbrook Grocery Co., Woodsville, N. H.	A	98	S	90
1957	CORN (*Leaming*) ..... J. S. Morrill Laconia, N. H.	A	98	A	90
2236	CORN (*Sanford*) ..... Moulton & Clark, Lisbon, N. H.	A	98	A	90
2072	CORN (*Leaming*) ..... W. F. Neal, Derry, N. H.	S	98	S	98
1975	CORN (*Eureka*) ..... S. A. Plummer, Tilton, N. H.	B	100	S	90
1976	CORN (*Sanford*) ..... S. A. Plummer, Tilton, N. H.	S	100	A	90
1963	CORN (*Eureka*) ..... H. C. Sanborn, Laconia, N. H.	S	95	B	90
1968	CORN (*Eureka*) ..... H. C. Sanborn, Laconia, N. H.	A	95	B	90
2205	CORN (*Leaming*) ..... A. L. Shuman, Lisbon, N. H.	99	..	98	..
2232	CORN (*Red Cob*) ..... F. B. Spaulding & Co., Lancaster, N. H.	99	..	96	..
2014	CORN (*Leaming*) ..... John B. Varick Co., Manchester, N. H.	A	98	S	90
2015	CORN (*Pride of the North*) ..... John B. Varick Co., Manchester, N. H.	A	97	S	87
2027	CORN (*Sanford White*) ..... John B. Varick Co., Manchester, N. H.	S	97	S	95
2037	CORN (*Early Canada*) ..... W. E. Peel, Nashua, N. H.	S	..	B	96
2122	CORN (*Leaming*) ..... Goodwin Bros., E. Jaffrey, N. H.	A	98	A	90
1966	MILLET (*German*) ..... E. H. Bryant, Tilton, N. H.	B	97	B	90
2268	MILLET, GOLDEN (*Dickinson*) ..... R. L. Costello, Portsmouth, N. H.	A	98.5	B	89
2094	MILLET (*Hungarian*) ..... Bell & Ripley, Winchester, N. H.	A	80	B	75
2149	MILLET (*Hungarian*) ..... Charlestown Grain Co., Charlestown, N. H.	A	97	S	80
2265	MILLET (*Hungarian*) ..... R. L. Costello, Portsmouth, N. H.	S	99	B	92
2093	MILLET (*Hungarian*) ..... J. Cushing Company, Keene, N. H.	A	97	B	78
2140	MILLET (*Hungarian*) ..... Frost & Pierce, Claremont, N. H.	A	98.2	B	90

A—Above
S—Satisfactory
B—Below

SEED EXAMINATION, 1919—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity.		Germination.	
		Found.	Guaranteed.	Found.	Guaranteed.
2086	MILLET (*Hungarian*) ..... Goodwin Bros., E. Jaffrey, N. H.	A	98	B	90
2080	MILLET (*Hungarian*) ..... R. M. Gordon, Goffstown, N. H.	A	98	B	92
2145	MILLET (*Hungarian*) (*Pan Amer.*) ..... C. W. Hildreth & Son, Lebanon, N. H.	A	98	S	90
2114	MILLET (*Hungarian*) ..... Holbrook Grocery Co., Keene, N. H.	S	98	S	83
1939	MILLET (*Hungarian*) (*J. Breck & Son*).. Keegan & French, Franklin, N. H.	A	98	B	96
2071	MILLET (*Hungarian*) ..... Kendall & Wilkins, Milford, N. H.	A	98	B	90
1988	MILLET (*Hungarian*) ..... J. A. Maddox & Son, Milton Mills, N. H.	A	97	S	80
1948	MILLET (*Hungarian*) ..... J. S. Morrill, Laconia, N. H.	A	98	B	90
1892	MILLET (*Hungarian*) (*Dickinson*)..... F. W. Neal, Dover, N. H.	S	98	S	85
2189	MILLET (*Hungarian*) ..... C. J. Poole, N. Conway, N. H.	A	97	S	81
1947	MILLET (*Hungarian*) (*Choice*) ..... C. P. Stevens, Franklin, N. H.	A	90	S	92
2016	MILLET (*Hungarian*) ..... John B. Varick Co., Manchester, N. H.	S	98	S	92
1915	MILLET (*Hungarian*) ..... E. T. Willson, Farmington, N. H.	S	97	B	90
2091	MILLET (*Jap.*) (*Old Home*) ..... Abbott Grocery Co., Keene, N. H.	A	96	S	93
1945	MILLET (*Jap.*) ..... J. W. Beede Company, Meredith, N. H.	A	96.49	B	93.50
2172	MILLET (*Jap.*) ..... Mark Blaisdell, Wolfeboro, N. H.	A	98	B	90
1942	MILLET (*Jap.*) ..... A. F. Burtt Company, Plymouth, N. H.	A	97	S	95
2146	MILLET (*Jap.*) ..... Charlestown Grain Co., Charlestown, N. H.	A	97.2	B	89
2119	MILLET (*Jap.*) ..... J. Cushing & Company, Keene, N. H.	A	97	S	93.5
1998	MILLET (*Jap.*) ..... E. C. Foss Company, Rochester, N. H.	A	94	A	80
2198	MILLET (*Jap.*) ..... Gates & Moore, Lisbon, N. H.	A	90	B	83
2136	MILLET (*Jap.*) ..... L. W. Gile, Newport, N. H.	A	94	S	80
2089	MILLET (*Jap.*) (*Whit.-Eck. Co.*)..... Goodwin Bros., E. Jaffrey, N. H.	A	96	S	90
2063	MILLET (*Jap.*) ..... R. M. Gordon, Goffstown, N. H.	A	98	S	92
2184	MILLET (*Jap.*) ..... Jackson, Durgin Co., Littleton, N. H.	A	98	S	92
1970	MILLET (*Jap.*) ..... H. Little Grain Co., Plymouth, N. H.	A	98	S	98
1990	MILLET (*Jap.*) ..... J. A. Maddox & Son, Milton Mills, N. H.	A	87	B	90
1973	MILLET (*Jap.*) (*Pan Amer.*)..... J. S. Merrill, Laconia, N. H.	A	96	S	90
1927	MILLET (*Jap.*) (*Dickinson*) ..... F. W. Neal, Dover, N. H.	S	95	S	90
2188	MILLET (*Jap.*) ..... C. J. Poole, N. Conway, N. H.	A	98	S	92
1944	MILLET (*Jap.*) ..... H. C. Sanborn, Laconia, N. H.	A	90	S	80
2258	MILLET (*Jap.*) ..... Frank Smith Co., Lancaster, N. H.	S	98.8	S	88
1903	MILLET (*Jap.*) ..... Somersworth Grain Co., Somersworth, N. H.	S	99	S	96
2183	MILLET (*Jap.*) ..... F. B. Spaulding & Co., Lancaster, N. H.	A	97	S	80

A—Above
S—Satisfactory
B—Below

SEED EXAMINATION, 1919—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity.		Germination.	
		Found.	Guaranteed.	Found.	Guaranteed.
1976	MILLET (*Jap.*) (*81808*) ..... C. P. Stevens, Franklin, N. H.	S	98	S	92
2029	MILLET (*Jap.*) ..... John B. Varick Co., Manchester, N. H.	A	96.5	S	98
2005	MILLET (*Jap.*) ..... J. H. Willey, Milton, N. H.	S	94	S	80
1922	MILLET (*Jap.*) ..... E. T. Willson, Farmington, N. H.	S	97	B	90
2036	OATS (*White Mountain*) ..... P. H. Adams & Son, Pittsfield, N. H.	S	99	S	97
2167	OATS (*White Mountain*) ..... Boynton & Ellis, Claremont, N. H.	S	99	S	97
1866	OATS (*St. Albans' Gro. Co.*) ..... F. M. Bunker, Dover, N. H.	B	99	S	97
1935	OATS (*Fancy Silver Maine*) ..... A. F. Burtt. Co., Plymouth, N. H.	B	98	S	98
2185	OATS (*F. S. Co. Selected*) ..... C. W. Cisco, Colebrook, N. H.	S	99	S	99
2002	OATS ..... E. C. Foss Company, Rochester, N. H.	A	98	A	90
2085	OATS (*Swedish Select*) ..... Goodwin Bros., E. Jaffrey, N. H.	A	98	A	90
2062	OATS ..... Hill Hdw. & Paint Co., Nashua, N. H.	A	98	S	90
2168	OATS ..... L. C. Hill, Enfield, N. H.	B	99	S	97
2128	OATS (*White Mountain*) ..... Holbrook Grocery Co., Keene, N. H.	S	99	S	94
2216	OATS (*White Mountain*) ..... Holbrook Grocery Co., Woodsville, N. H.	S	99	S	97
1931	OATS ..... C. L. Jenness, Dover, N. H.	A	99	S	98
2047	OATS (*Montana*) ..... H. P. Maxfield, Pittsfield, N. H.	B	99.2	B	99
1971	OATS (*White Mountain*) ..... Meredith Grain Co., Meredith, N. H.	S	99	S	97
2076	OATS ..... C. C. Morse, Goffstown, N. H.	99	..	S	98
2177	OATS ..... C. J. Poole, N. Conway, N. H.	S	99.5	S	99.5
1933	OATS (*White Mountain*) ..... Riley & Tuttle, Rochester, N. H.	S	99	S	97
1865	OATS (*Whit.-Eck. Co.*) ..... J. H. Seavey, Dover, N. H.	A	98	A	90
1867	OATS (*Craver-Dickinson Seed Co.*)..... J. H. Seavey, Dover, N. H.	B	99	A	90
2201	OATS (*F. S. S. O.*) ..... Frank Smith Co., Lancaster, N. H.	S	99	S	99
1997	OATS ..... Strafford County Coop. Grain Co., Rochester, N. H.	A	95	S	94
2021	OATS ..... John B. Varick Co., Manchester, N. H.	A	98	S	97
2171	OATS (*Mammoth Cluster*) ..... W. Ross Wilson, Woodsville, N. H.	99	..	4.5	..
1897	OATS (*National*) ..... E. J. York, Dover, N. H.	A	90	A	85
1913	ORCHARD GRASS ..... E. T. Willson, Farmington, N. H.	A	65	S	95
2108	PEA (*Bliss Everbearing*) ..... J. M. Erwin, Keene, N. H.	S	90	A	83
2130	PEA (*Yorkshire*) ..... J. M. Erwin, Keene, N. H.	A	98	S	85
1980	PEA VINE CLOVER (*Mammoth*) ..... Weeks & Smith, Meredith, N. H.	S	97	B	90
1911	RAPE (*Dwarf Essex*) ..... E. T. Willson, Farmington, N. H.	S	99	S	90
2073	RED CLOVER) ..... Annis Grain & Lumber Co., N. Londonderry, N. H.	S	97	B	80

A—Above
S—Satisfactory
B—Below

SEED EXAMINATION, 1919—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity.		Germination.	
		Found.	Guaranteed.	Found.	Guaranteed.
1992	RED CLOVER ..... Ayers & Jenkins, Rochester, N. H.	A	96	B	91
2118	RED CLOVER (*XXX*) ..... Ball & Ripley, Winchester, N. H.	B	95	B	85
1978	RED CLOVER (*A. R. C.*) ..... J. B. Beede & Co. Meredith, N. H.	A	97	B	90
2186	RED CLOVER ..... Mark B. Blaisdell, Wolfeboro, N. H.	S	98.5	S	92.5
1902	RED CLOVER (*Holway*) ..... F. M. Bunker, Dover, N. H.	A	98	B	95
1934	RED CLOVER ..... A. F. Burtt Company, Plymouth, N. H.	S	99	S	90
2213	RED CLOVER (*XX*) ..... L. C. Butler, Woodsville, N. H.	A	95	A	84
2123	RED CLOVER ..... J. Cushing Company, Keene, N. H.	S	98.5	S	92.5
2033	RED CLOVER (*Ace*) ..... Ferdinand French, Pittsfield, N. H.	A	98	B	92
1991	RED CLOVER ..... E. C. Foss Company, Rochester, N. H.	S	98	S	90
2044	RED COVER (*Pan Amer.*) ..... W. F. French, Milford, N. H.	S	98	B	96
2180	RED CLOVER (*White Mountain*) ..... J. W. Garvin & Co., Sanbornville, N. H.	S	99.5	B	94
2135	RED CLOVER ..... L. W. Gile, Newport, N. H.	S	98.5	S	90
2158	RED CLOVER (*Med. Pan Amer.*)..... C. M. Hildreth & Son, Lebanon, N. H.	S	98	B	95
2159	RED CLOVER (*Ace*) ..... C. M. Hildreth & Son, Lebanon, N. H.	S	98.2	S	93
2163	RED CLOVER (*Mammoth*)..... C. M. Hildreth & Son, Lebanon, N. H.	S	98	B	92
2267	RED CLOVER (*Pine Tree*) ..... R. L. Costello, Portsmouth, N. H.	A	98	B	90
2126	RED CLOVER (*White Mountain*)..... Holbrook Grocery Co., Keene, N. H.	S	99.5	B	92
2204	RED CLOVER (*White Mountain*) ..... Holbrook Grocery Co., Woodsville, N. H.	S	99	A	92
2253	RED CLOVER (*Ace*) ..... Holbrook Grocery Co., Woodsville, N. H.	A	90	S	90
2111	RED CLOVER (*IX*) ..... Holbrook Grocery Co., Keene, N. H.	A	80	B	75
2206	RED CLOVER ..... Jackson, Durgin Co., Littleton, N. H.	A	98	S	93
1885	RED CLOVER (*Eureka*) ..... C. L. Jenness, Dover, N. H.	S	99	S	95
1894	RED CLOVER (*Eureka*) ..... C. L. Jenness, Dover, N. H.	S	97	B	80
2069	RED CLOVER ..... Kendall & Wilkins, Milford, N. H.	A	98.2	S	93
2176	RED CLOVER (*White Mountain*) ..... Edson & Kinne, Littleton, N. H.	S	99.5	S	92
2134	RED CLOVER (*Ace*) ..... Lewis Bros., Lebanon, N. H.	S	97	B	85
1949	RED CLOVER (*Bison*) ..... H. Little Grain Co., Plymouth, N. H.	S	94	B	88
2055	RED CLOVER ..... Manchester Hdw. Co., Manchester, N. H.	S	98	B	90
2034	RED CLOVER (*A. R. C.*) ..... H. P. Maxfield, Pittsfield, N. H.	A	98	A	80
2238	RED CLOVER ..... Moulton & Clark, Lisbon, N. H.	A	97	A	89
1899	RED CLOVER ..... F. W. Neal, Dover, N. H.	A	98	S	95
2233	RED CLOVER (*Ace*) ..... C. J. Poole, N. Conway, N. H.	A	98	S	92
1960	RED CLOVER (*Ace*) ..... Rand & Dearborn, Laconia, N. H.	S	98	B	92
2142	RED CLOVER ..... F. P. Rowell, Newport, N. H.	S	90	B	90

A—Above

S—Satisfactory

B—Below

SEED EXAMINATION, 1919—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity.		Germination.	
		Found.	Guaranteed.	Found.	Guaranteed.
1953	RED CLOVER (*White Mountain*) ..... H. C. Sanborn, Laconia, N. H.	S	99.5	S	94
1898	RED CLOVER (*Craver-Dickinson Co.*) .... J. H. Seavey, Dover, N. H.	S	95	S	85
2209	RED CLOVER (*Ace*) ..... C. W. Cisco, Colebrook, N. H.	A	97.4	S	91
2241	RED CLOVER (*Ace*) ..... Frank Smith Co., Lancaster, N. H.	A	97.4	S	91
1888	RED CLOVER (*Pan Amer.*) ..... Somersworth Grain Co., Somersworth, N. H.	A	95	S	90
2227	RED CLOVER ..... F. B. Spaulding & Co., Lancaster, N. H.	A	98	A	92
1958	RED CLOVER (*Ace*) ..... C. P. Stevens, Franklin, N. H.	A	98.2	S	93
2019	RED CLOVER ..... John B. Varick Co., Manchester, N. H.	S	98.2	S	93
2025	RED CLOVER (*Medium*) ..... John B. Varick Co., Manchester, N. H.	S	98	B	93
2173	RED CLOVER ..... H. H. Wallace, Wolfeboro, N. H.	A	98	B	90
1984	RED CLOVER ..... Weeks & Smith, Meredith, N. H.	A	98	S	92
2006	RED CLOVER ..... J. H. Willey, Milton, N. H.	A	96	B	91
1882	RED CLOVER ..... E. T. Willson, Farmington, N. H.	A	95	B	90
2255	RED CLOVER ..... Perley E. Young, Wolfeboro Falls, N. H.	S	99	B	97
2110	RED TOP (*Blue-Jay*) ..... Abbott Grocery Co., Keene, N. H.	S	94	B	92
2098	RED TOP (*Blue-Jay*) ..... G. H. Eames & Son, Keene, N. H.	S	94	B	92
2075	RED TOP ..... Annis Grain & Lumber Co., N. Londonderry, N. H.	A	90	S	90
2038	RED TOP ..... Bell Hardware Co., Derry, N. H.	S	90	B	100
2008	RED TOP ..... Berry & Shorey, Rochester, N. H.	B	99	B	90
2242	RED TOP ..... Mark B. Blaisdell, Wolfeboro, N. H.	S	90	S	90
2154	RED TOP (*XX*) ..... Boynton & Ellis, Claremont, N. H.	S	75	S	83
2203	RED TOP ..... I. C. Butler, Woodsville, N. H.	S	95	S	82
2225	RED TOP (*Pan Amer.*) ..... F. O. Brown, Whitefield, N. H.	S	90	S	90
1936	RED TOP (*Pan Amer.*) ..... A. F. Burtt Company, Plymouth, N. H.	A	90	B	90
2157	RED TOP ..... Charlestown Grain Co., Charlestown, N. H.	S	85	S	81
2269	RED TOP (*Ace Brand, Pine Tree*) ..... R. L. Costello, Portsmouth, N. H.	S	90	S	90
2120	RED TOP ..... J. Cushing & Company, Keene, N. H.	B	96.5	B	92.5
2010	RED TOP ..... E. C. Foss & Company, Rochester, N. H.	S	90	S	90
2139	RED TOP ..... Frost & Pierce, Claremont, N. H.	S	86	S	82
2254	RED TOP (*White Mountain*) ..... I. W. Garvin & Co., Sanbornville, N. H.	S	95	S	90
2137	RED TOP (*1918*) ..... L. W. Gile, Newport, N. H.	S	90	S	90
2138	RED TOP ..... L. W. Gile, Newport, N. H.	S	90	S	90
2103	RED TOP ..... Goodwin Bros., E. Jaffrey, N. H.	B	99.5	S	94
2058	RED TOP (*Pan Amer.*) ..... Haseltine & Cauldwell, Milford, N. H.	S	90	S	90

A—Above
S—Satisfactory
B—Below

SEED EXAMINATION, 1919—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity.		Germination.	
		Found.	Guaranteed.	Found.	Guaranteed.
2162	RED TOP (*Pan Amer.*) (*Whit.-Eck. Co.*) C. M. Hildreth & Son, Lebanon, N. H.	S	90	S	90
2192	RED TOP ..... C. E. Hodgdon, N. Conway, N. H.	S	90	S	90
2207	RED TOP ..... C. E. Hodgdon, N. Conway, N. H.	S	90	S	90
2202	RED TOP (*XX*) ..... Holbrook Grocery Co., Woodsville, N. H.	S	80	S	83
2244	RED TOP (*XXX*) ..... Holbrook Grocery Co., Woodsville, N. H.	S	90	S	86
2249	RED TOP (*White Mountain*) ..... Holbrook Grocery Co., Woodsville, N. H.	S	95	S	90
2199	RED TOP (*Fancy*) ..... Jackson, Durgin Co., Littleton, N. H.	S	94	S	80
1908	RED TOP (*Eureka*) ..... C. L. Jenness, Dover, N. H.	S	96	B	90
2077	RED TOP ..... Kendall & Wilkins, Milford, N. H.	A	90	S	90
2196	RED TOP ..... Edson & Kinne, Littleton, N. H.	A	90	S	90
1951	RED TOP (*Ace*) ..... H. Little Grain Co., Plymouth, N. H.	S	90	B	93
2195	RED TOP ..... F. S. Lord, W. Ossipee, N. H.	S	95	S	90
2011	RED TOP ..... J. A. Maddox Co., Milton Mills, N. H.	S	90	S	90
2053	RED TOP ..... Manchester Hlw. Co., Manchester, N. H.	S	90	B	94
2150	RED TOP ..... R. T. Martin, Newport, N. H.	S	90	S	90
2035	RED TOP ..... H. P. Maxfield, Pittsfield, N. H.	S	91	S	85
1900	RED TOP ..... Miller & Rollins, New Durham, N. H.	S	90	S	90
2060	RED TOP ..... J. J. Moreau & Son, Manchester, N. H.	B	94.3	B	90
1891	RED TOP (*Dickinson*) ..... F. W. Neal, Dover, N. H.	S	90.6	B	96
2078	RED TOP ..... W. F. Neal, Derry, N. H.	S	90	S	90
2257	RED TOP ..... A. W. Palmer, Mountainview, N. H.	B	99.5	S	99
1914	RED TOP ..... Pelletier Bros., Farmington, N. H.	B	98	B	90
2193	RED TOP (*Ace*) ..... C. J. Poole, N. Conway, N. H.	S	90	S	90
1961	RED TOP (*Ace No 22976*) ..... Rand & Dearborn, Laconia, N. H.	S	90	S	90
2194	RED TOP (*Imperator*) ..... I. C. Richardson, Littleton, N. H.	S	85	S	85
1941	RED TOP (*XX*) ..... H. C. Sanborn, Laconia, N. H.	S	80	A	83
2263	RED TOP (*Pan Amer.*) ..... S. A. Schuman, Portsmouth, N. H.	S	90	S	90
1904	RED TOP ..... J. H. Seavey, Dover, N. H.	B	96	B	90
1886	RED TOP (*Liberty*) ..... Somersworth Grain Co., Somersworth, N. H.	B	99	B	96
2104	RED TOP (*2X*) ..... W. H. Taylor, Hinsdale, N. H.	77	..	S	83
2017	RED TOP (*Fancy*) ..... John B. Varick Co., Manchester, N. H.	S	90	B	90
1962	RED TOP (*Carried Over*) ..... Weeks & Smith, Meredith, N. H.	80.2	..	..	..
2007	RED TOP ..... J. H. Willey, Milton, N. H.	S	80	S	85
1921	RED TOP ..... E. T. Willson, Farmington, N. H.	S	90	S	90
2256	RED TOP ..... Perley E. Young, Wolfeboro Falls, N. H.	S	98	S	97

A—Above
S—Satisfactory
B—Below

SEED EXAMINATION, 1919—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity.		Germination.	
		Found.	Guaranteed.	Found.	Guaranteed.
1974	RYE (*Spring*) ..... C. P. Stevens, Franklin, N. H.	A	90	A	80
1965	RYE (*Rosen*) ..... A. F. Burtt Company, Plymouth, N. H.	S	99	94	..
2092	RYE (*Spring*) ..... Goodwin Bros., E. Jaffrey, N. H.	A	90	S	98
1921	RYE (*Spring*) ..... C. L. Jenness, Dover, N. H.	S	98	S	90
2050	RYE (*Spring*) ..... Manchester Hdw. Co., Manchester, N. H.	B	96	S	92
2013	RYE (*Spring*) ..... John B. Varick Co., Manchester, N. H.	S	97	S	92
2043	SPELTZ ..... Haseltine & Cauldwell, Milford, N. H.	S	98	S	90
2112	SWEET CLOVER ..... Holbrook Grocery Co., Keene, N. H.	A	99.2	76	..
2067	SWEET CLOVER ..... Kendall & Wilkins, Milford, N. H.	B	98	B	90
2109	TIMOTHY (*Blue-Jay*) ..... Abbott Grocery Co., Keene, N. H.	S	99.6	B	92
2074	TIMOTHY (*Herald*) ..... Annis Grain & Lumber Co., N. Londonderry, N. H.	S	97	B	96
1994	TIMOTHY ..... Ayers & Jenkins, Rochester, N. H.	A	99	B	96
2124	TIMOTHY (*Mastiff*) ..... Ball & Ripley, Winchester, N. H.	S	99	B	95
2039	TIMOTHY (*Pan Amer.*) ..... Bell Hardware Co., Derry, N. H.	S	99.5	S	94
2003	TIMOTHY ..... Berry & Shorey, Rochester, N. H.	A	99	B	95
2191	TIMOTHY ..... Mark B. Blaisdell, Wolfeboro, N. H.	S	99	A	90
2155	TIMOTHY (*XX*) ..... Boynton & Ellis, Claremont, N. H.	B	98	B	92
2187	TIMOTHY (*Pan Amer.*) ..... F. P. Brown, Whitefield, N. H.	S	99.5	B	94
1937	TIMOTHY (*Choice 420*) ..... W. B. Brown, Ashland, N. H.	A	98	S	96
1938	TIMOTHY (*Jersey*) ..... O. A. Brown, Ashland, N. H.	A	99.10	S	91
1907	TIMOTHY (*Holway*) ..... F. M. Bunker, Dover, N. H.	B	99	S	95
2214	TIMOTHY (*Pine Tree*) ..... L. C. Butler, Woodsville, N. H.	S	99.6	B	94
2143	TIMOTHY (*Arrow*) ..... Charlestown Grain Co., Charlestown, N. H.	S	99.1	S	90
2160	TIMOTHY (*King*) ..... Charlestown Grain Co., Charlestown, N. H.	B	99.6	S	96
2106	TIMOTHY (*Old Home*) ..... J. Cushing Company, Keene, N. H.	A	99	B	92.5
2099	TIMOTHY (*White Mountain*) ..... G. H. Eames & Son, Keene, N. H.	S	99.8	S	94
2211	TIMOTHY (*XX*) ..... W. G. English, Lisbon, N. H.	A	98	S	92
2001	TIMOTHY (*No. 2*) ..... E. C. Foss & Co., Rochester, N. H.	A	99	B	96
2004	TIMOTHY (*No. 1*) ..... E. C. Foss & Co., Rochester, N. H.	A	99	B	94
2042	TIMOTHY (*Gold Medal*) ..... W. F. French, Milford, N. H.	S	99.2	B	96
2049	TIMOTHY (*Pan. Amer.*) ..... W. F. French, Milford, N. H.	S	99.3	B	95
2141	TIMOTHY ..... Frost & Pierce, Claremont, N. H.	A	99	B	96
2190	TIMOTHY (*White Mountain*) ..... J. W. Garvin & Co., Sanbornville, N. H.	S	99.7	S	97
2223	TIMOTHY (*Monadnock*) ..... Gates & Moore, Lisbon, N. H.	S	99.6	B	95

A—Above
S—Satisfactory
B—Below

SEED EXAMINATION, 1919—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity.		Germination.	
		Found.	Guaranteed.	Found.	Guaranteed.
2101	TIMOTHY (*White Mountain*) ..... D. A. & H. D. Gee, Winchester, N. H.	A	95	B	90
2088	TIMOTHY (*Pan Amer.*) ..... Goodwin Bros., E. Jaffrey, N. H.	S	99.5	S	94
2061	TIMOTHY ..... R. M. Gordon, Goffstown, N. H.	S	99.5	95.5	..
2259	TIMOTHY (*Pine Tree*) ..... C. G. Hamlin, Gorham, N. H.	S	99.6	S	92
2040	TIMOTHY (*Pan Amer.*) ..... Haseltine & Cauldwell, Milford, N. H.	S	99.5	S	94
2161	TIMOTHY ..... C. M. Hildreth & Son, Lebanon, N. H.	S	99.5	B	92
2221	TIMOTHY (*XX*) ..... Holbrook Grocery Co., Woodsville, N. H.	A	98	S	92
2224	TIMOTHY (*White Mountain*) ..... Holbrook Grocery Co., Woodsville, N. H.	A	99	S	94
2107	TIMOTHY (*White Mountain*) ..... Holbrook Grocery Co., Woodsville, N. H.	S	99.8	B	94
2237	TIMOTHY (*Monadnock*) ..... Holbrook Grocery Co., Woodsville, N. H.	S	99.6	S	95
2182	TIMOTHY (*Pine Tree*) ..... L. C. Jameson, Colebrook, N. H.	S	99.5	S	95
2228	TIMOTHY (*White Mountain*) ..... Jackson, Durgin Co., Littleton, N. H.	A	97	B	97
1896	TIMOTHY (*Pan. Amer.*) ..... C. L. Jenness, Dover, N. H.	S	99	S	95
1940	TIMOTHY (*J. Breck*) ..... Keegan & French, Franklin, N. H.	S	98	S	93
2066	TIMOTHY (*Pan Amer.*) ..... Kendall & Wilkins, Milford, N. H.	S	99.5	S	94
2219	TIMOTHY (*White Mountain*) ..... Edson & Kinne, Littleton, N. H.	S	99.88	S	84
2229	TIMOTHY (*Gold Medal*) ..... Edson & Kinne, Littleton, N. H.	S	99.70	S	95
2251	TIMOTHY ..... Edson & Kinne, Littleton, N. H.	S	98	S	90
1969	TIMOTHY ..... C. F. Locke, Lakeport, N. H.	A	98	S	96
2174	TIMOTHY (*White Mountain*) ..... F. S. Lord, W. Ossipee, N. H.	A	90.85	B	94
1989	TIMOTHY (*Pine Tree*) ..... J. A. Maddox & Son, Milton Mills, N. H.	A	99	S	96
2051	TIMOTHY ..... Manchester Hdw. Co., Manchester, N. H.	S	99.6	S	93
2151	TIMOTHY (*Monadnock*) ..... R. T. Martin, Newport, N. H.	A	99	B	95
2152	TIMOTHY (*Pan Amer.*) ..... R. T. Martin, Newport, N. H.	S	99.5	B	94
1943	TIMOTHY (*Pan Amer.*) ..... J. S. Morrill, Laconia, N. H.	S	99.5	S	94
2095	TIMOTHY (*Mastiff*) ..... Metcalf & Hughton, Walpole, N. H.	A	99	B	95
1923	TIMOTHY (*J. B. Varick*) ..... Miller & Rollins, New Durham, N. H.	B	99	S	96
2243	TIMOTHY (*Pan Amer.*) ..... Moulton & Clark, Lisbon, N. H.	S	99.5	S	94
2248	TIMOTHY (*Pine Tree*) ..... Moulton & Clark, Lisbon, N. H.	S	99.6	S	96
2247	TIMOTHY (*Gold Medal*) ..... Moulton & Clark, Lisbon, N. H.	S	99.7	B	96
1893	TIMOTHY (*Pine Tree*) ..... F. W. Neal, Dover, N. H.	B	99.6	S	96
2081	TIMOTHY ..... W. F. Neal, Derry, N. H.	S	99	S	90
2181	TIMOTHY (*Pine Tree*) ..... A. W. Palmer, Mountainview, N. H.	A	98	S	96
2245	TIMOTHY (*Pan Amer.*) ..... Fred Parker, Lisbon, N. H.	S	99.5	S	95
2197	TIMOTHY ..... H. Pasco, W. Ossipee, N. H.	A	92	S	85

A—Above

S—Satisfactory

B—Below

SEED EXAMINATION, 1919—*Continued.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity.		Germination.	
		Found.	Guaranteed.	Found.	Guaranteed.
1912	TIMOTHY ..... Pelletier Bros., Farmington, N. H.	A	70	A	80
2234	TIMOTHY (*Pine Tree*) ..... C. J. Poole, N. Conway, N. H.	S	99	S	96
2102	TIMOTHY (*Monadnock*) ..... E. E. Prentice & Son, Winchester, N. H.	A	99	B	95
2208	TIMOTHY ..... I. C. Richardson, Littleton, N. H.	S	98	B	90
1954	TIMOTHY (*XX*) ..... H. C. Sanborn, Laconia, N. H.	A	98	B	98
1956	TIMOTHY (*White Mountain*) ..... H. C. Sanborn, Laconia, N. H.	S	99.85	S	94
1985	TIMOTHY (*Pine Tree*) ..... H. C. Sanborn, Laconia, N. H.	S	99.5	92.5	..
2153	TIMOTHY ..... H. B. Sawyer, Sunapee, N. H.	S	98	B	91
2264	TIMOTHY (*Pan Amer.*) ..... S. A. Schurman, Portsmouth, N. H.	S	99.5	S	94
1870	TIMOTHY (*Craver-Dickinson Seed Co.*)... J. H. Seavey, Dover, N. H.	A	98	S	92
2246	TIMOTHY (*Durham*) ..... A. S. Shurman, Lisbon, N. H.	S	99.6	S	94
2230	TIMOTHY ..... Frank Smith Co., Lancaster, N. H.	A	99	S	94
1930	TIMOTHY (*Pine Tree*) ..... Somersworth Grain Co., Somersworth, N. H.	A	99	S	95
2083	TIMOTHY (*Larke*) ..... F. A. Spaulding, Walpole, N. H.	S	98	B	85
1959	TIMOTHY (*Jersey*) ..... C. P. Stevens, Franklin, N. H.	A	94	S	91
2105	TIMOTHY (*White Mountain*) ..... W. H. Taylor, Hinsdale, N. H.	S	99.8	B	94
2020	TIMOTHY (*Durham*) ..... John B. Varick Co., Manchester, N. H.	A	99	B	95
2018	TIMOTHY (*Jersey*) ..... John B. Varick Co., Manchester, N. H.	A	98	S	91
1979	TIMOTHY ..... Weeks & Smith, Meredith, N. H.	A	98	S	91
1987	TIMOTHY ..... H. F. Whitehouse, Milton, N. H.	A	99	B	98
1993	TIMOTHY ..... J. H. Willey, Milton, N. H.	A	99	S	98
1883	TIMOTHY (*Pine Tree*) ..... E. T. Willson, Farmington, N. H.	A	99	S	95
2179	TIMOTHY ..... Perley E. Young, Wolfeboro Falls, N. H.	A	99	B	90
2240	WHEAT (*Marquis*) ..... F. P. Brown, Whitefield, N. H.	A	99	S	95
2231	WHEAT ..... Edson & Kinne, Littleton, N. H.	99	..	99	..
2087	WHEAT (*Marquis*) ..... Goodwin Bros., E. Jaffrey, N. H.	A	98	A	90
2164	WHEAT (*White Mountain*) ..... C. M. Hildreth & Son, Lebanon, N. H.	S	99	S	95
2252	WHEAT (*Marquis*) ..... Frank Smith Co., Lancaster, N. H.	S	99	S	97
2000	WHEAT (*Spring*) ..... E. C. Foss Company, Rochester, N. H.	B	98	A	90
2048	WHEAT (*Spring*) ..... Haseltine & Cauldwell, Milford, N. H.	S	98	A	90
2113	WHEAT (*Spring*) (*White Mountain*).... Holbrook Grocery Co. Keene, N. H.	S	99.4	S	95
1906	WHEAT (*Spring*) ..... C. L. Jenness, Dover, N. H.	S	99	S	98
1955	WHEAT (*Spring*) ..... Meredith Grain Co., Meredith, N. H.	A	98	A	90
2056	WHEAT (*Spring*) (*Marquis*) ..... John B. Varick Co., Manchester, N. H.	S	99	S	95
2023	WHEAT (*Spring*) (*Marquis*) ..... W. E. Peel, Nashua, N. H.	S	99	A	90

A—Above
S—Satisfactory
B—Below

SEED EXAMINATION, 1919—*Concluded.*

Sample No.	Kind of Seed, Brand, Name and Address of Dealer.	Purity.		Germination.	
		Found.	Guaranteed.	Found.	Guaranteed.
1964	WHEAT (*Winter*) ..... A. F. Burtt Company, Plymouth, N. H.	A	99	S	95
2144	WHITE CLOVER ..... Charlestown Grain Co., Charlestown, N. H.	B	99	B	93
2266	WHITE CLOVER (*Dickinson*) ..... R. L. Costello, Portsmouth, N. H.	A	91	B	90
2064	WHITE CLOVER ..... Kendall & Wilkins, Milford, N. H.	S	95	B	90
2054	WHITE CLOVER ..... Manchester Hdw. Co., Manchester, N. H.	A	91	B	85
1895	WHITE CLOVER (*Dickinson*) ..... F. W. Neal, Dover, N. H.	S	97	S	80
2261	WHITE CLOVER (*Pan Amer.*) ..... S. A. Schuman, Portsmouth, N. H.	B	95	S	90
2024	WHITE CLOVER ..... John B. Varick Co., Manchester, N. H.	A	91	B	88
1881	WHITE CLOVER ..... E. T. Willson, Farmington, N. H.	A	95	S	90

A—Above
S—Satisfactory
B—Below

TABLE SHOWING RESULTS OF TESTS AND EXAMINATION OF SAMPLES OF SEEDS SUBMITTED BY THE COMMISSIONER OF AGRICULTURE FROM JULY 1, 1918, TO JULY 1, 1919.

Kind of Seed.	Number.	Purity.				Germination.			
		Highest per cent.	Lowest per cent.	Average per cent.	Standard.	Highest per cent.	Lowest per cent.	Average per cent.	Standard.
Alfalfa	6	99.1	93.5	97.9	98	92.5	64.5	80.9	85-90
Alsike	38	99.5	93.0	97.6	95	98.5	33.5	89.6	75-80
Barley	18	99.5	96.2	98.3	99	99.0	94.0	97.0	90-95
Buckwheat	3	99.0	97.5	98.2	99	90.0	75.0	84.0	90-95
Corn	22	100.0	96.6	98.7	99	100.0	72.0	93.2	90-95
Millet	45	99.6	94.0	98.2	99	97.0	41.5	81.0	85-90
Oats	24	99.9	97.1	98.8	99	99.5	4.5	92.2	90-95
Red Clover	50	99.8	92.0	98.0	98	99.0	3.5	76.8	85-90
Redtop	55	97.9	77.0	90.6	95	94.0	70.2	84.9	75-80
Rye	6	98.5	93.9	97.1	99	97.0	87.5	91.8	90-95
Timothy	83	99.9	82.0	99.0	98	98.0	40.0	86.4	85-90
Wheat	13	99.6	97.2	98.8	99	99.5	95.0	97.8	90-95
White Clover ...	8	97.3	90.0	91.8	95	89.0	22.5	65.8	75-80
Miscellaneous ..	14								
Total	385								

SUMMARY.

As previously noted only 388, or 48 per cent, of the total number of samples collected by the inspectors were guaranteed as to purity and germination. Last year 58.5 per cent of the samples were guaranteed, while two years ago 84 per cent were guaranteed. These figures indicate an increasing tendency on the part of certain seed dealers to ignore the law.

Of the samples which were guaranteed for purity, 90 per cent were found to be up to or above the guarantee; while of those which were guaranteed for germination only 67 per cent were found to be up to or above the guarantee. Last year the same percentages were 95 and 63 respectively.

With the exception of alsike, red clover and timothy, all the various classes of seeds tested this year average slightly below the "standard" as regards purity. In the matter of germination all classes averaged up to the "standard" except alfalfa, buckwheat, millet, red clover, and white clover.

It should be noted that a few very poor lots of seed were found on the market this spring. One lot of red clover, guaranteed 80%, tested only 3.5%, while another guaranteed 95%, tested only 6%. Some of the millets were also low in germination; one sample guaranteed 90%, tested only 41.5%. Likewise a lot of timothy guaranteed 95%, tested only 40%, and a lot of white clover, guaranteed 93%, tested only 22.5%.

The most reasonable explanation for these low testing seeds is that they were old and had been carried over for one or more years. In case seeds are carried over, the dealers, for their own protection, should have a new germination test made instead of relying upon the test upon which the seeds were originally purchased. Every dealer should have a sense of pride in selling only seeds which are up to their guarantee, and the farmer who is buying these seeds and paying the present high prices for them has a right to expect that his seeds are just as good as they are represented to be.

It would be "good business" for a seed dealer to advertise that he is selling only the best seeds obtainable; that he guarantees their purity and germination and that he stands ready to stand behind his guarantee. He should take pride in displaying the guarantees in plain bold terms in a conspicuous place instead of in small faint figures on the back side of the bag or other container where nobody sees them. Large posters or placards, like the following, would bring trade:

"OUR SEEDS ARE GUARANTEED FOR PURITY AND GERMINATION"

"WE STAND BEHIND OUR SEED GUARANTEES"

"GOOD SEEDS BRING GOOD CROPS"

"NO OLD SEEDS FOR SALE HERE"

"OUR SEEDS ARE TESTED, TRIED AND TRUE"

"WE SELL ONLY TESTED SEEDS"

The use of good seeds is both a commercial and educational matter. In the latter the seed dealers themselves can be a strong factor by coöperating with the State Department of Agriculture and the Seed Testing Laboratory at the State College. If purity or germination tests are desired on a questionable lot of seed, the seed testing laboratory stands ready and willing to make tests to the limit of its capacity. The laboratory, however, cannot handle an unlimited number of samples for a large number of dealers in the limited time of two or three weeks. Send the samples in early and do not wait until the laboratory is crowded with the work of testing the official samples, or until the inspector comes and finds seeds being sold without a guarantee. This is what one dealer did this spring, and then sent us a lot of 100 samples, but unfortunately we were unable to accommodate him.

AMENDED TEXT OF NEW HAMPSHIRE SEED LAW

STATE OF NEW HAMPSHIRE.

IN THE YEAR OF OUR LORD ONE THOUSAND NINE HUNDRED AND NINE.

HOUSE BILL . . . . . No. 396

AN ACT

To Regulate the Sale of Agricultural Seeds.

Be it enacted by the Senate and House of Representatives in General Court convened:

SECTION 1. Every lot of argicultural seeds, including seeds of cereals, grasses, forage plants, vegetables, garden plants, and white pine trees, but not including those of other trees, shrubs, and ornamental plants, which is sold, offered, or exposed for sale for seed in bulk or package of one pound or more, within this state, shall be accompanied by a plainly written or printed guarantee, stating first its percentage of purity from foreign seeds and other matter, and second, its percentage of vitality.

SECT. 2. Sellers or dealers in seeds may base their guarantees upon tests or analyses conducted by themselves, their agents, or by the commissioner of agriculture or his agents *provided*, that such tests or analyses shall be made in such a manner and under such conditions as the said commissioner may prescribe.

SECT. 3. The results of all tests or analyses of seeds made by the said commissioner, together with the names and addresses of the persons from whom the samples of seed were obtained, shall be published in reports of bulletins by the commissioner of agriculture or the New Hampshire College experiment station, as the governor and council may determine. The report may contain equitable standards of purity and vitality together with such information concerning agricultural seeds as may be of public benefit.

SECT. 4 Whoever sells, offers or exposes for sale or for distribution, within this state, any agricultural seeds heretofore named in this act, without complying with the requirements of sections one and two, or whoever, with intention to deceive, wrongly marks or labels any lot of agricultural seeds, including the seeds of cereals, grasses, forage plants, vegetables, garden plants, and white pine trees, but not including those of other trees, shrubs and ornamental plants, as pertains to their percentage of purity and vitality, shall be punished by a fine not exceeding one hundred dollars for the first offense, and not exceeding two hundred dollars for each subsequent offense.

SECT. 5. The provisions of the four preceding sections shall not apply to any person growing, selling, offering or exposing for sale cereals and other agricultural seeds for food.

SECT. 6. The commissioner of agriculture shall diligently enforce the provisions of sections one and four of this act, and in his discretion prosecute offenses against the same.

LABELING.

The law does not apply to the common five-and ten-cent packages of garden and flower seeds. Only seeds sold in bulk or in packages of one pound or more are subject to the provisions of the law and are required to be accompanied by a guarantee stating their percentage of purity and vitality.

The guarantee or label may be of any form desired by the seller of the seeds, as a tag, sticker or direct brand upon the container. It must, however, be plainly written or printed, and placed distinctly visable to the purchaser. Each dealer will provide his own labels.

TAKING OF SAMPLES.

To secure a fair average sample of a lot or bulk, take small quantities from all of the bags or from different parts of any parti cular bulk. Mix thoroughly and take out the sample to be inspected. When the seeds are in bags or large bins, the use of a

grain sampler is most convenient, since this will insure getting seeds from the top, middle and bottom alike. Since the report of the analysis is based upon the nature of the sample inspected, it is important that the sample be carefully taken.

SIZE AND AMOUNTS OF SAMPLES.

The size and amount of the samples necessary for a test will depend upon the size and weight of the seeds. About one-half ounce or a tablespoonful of the smaller grass and vegetable seeds, like alsike and white clover, red top, lettuce, onions, radish, turnip, etc.; about one ounce or two tablespoonfuls of the larger seeds, like timothy, millet, red clover, alfalfa, rape, etc.; and about four ounces or a small cupful of the cereal grains or vegetable seeds, like oats, barley, corn, peas, beans, etc., should be sent.

TESTS AND EXAMINATIONS

Section 2 of the law states the provisions under which the tests and analyses shall be made. The sellers or dealers who desire to base their guarantees upon tests made by themselves or their agents must first secure the approval of the Commissioner of Agriculture of the methods to be used in making the tests, and of the person who is to conduct them.

SENDING OF SAMPLES.

Samples sent to the Experiment Station for testing should be enclosed in a strong paper envelope and securely fastened. They should not be sent in bottles or glass jars, owing to the danger of breakage. When a number of samples are to be sent they should be put up securely in a single package and forwarded either by parcel post or by express. Each sample sent in should be marked as follows:

Name and address of sender.
Date of sending. Kind of seed.
Brand name (if any), and number of package.
Purity or germination test desired (one or both).

Write a letter stating the number and kind of samples sent so that their receipt may be promptly acknowledged.

Address all samples and communications regarding the same to F. W. Taylor, Experiment Station, Durham, N. H.